

Structures, Processes, and Responses in Animals

6-3 The student will demonstrate an understanding of structures, processes, and responses in animals that allow them to survive and reproduce. (Life Science)

6.3.6 Summarize how the internal stimuli (including hunger, thirst, and sleep) of animals ensure their survival.

Taxonomy level: 2.4-B Understand Conceptual Knowledge

Previous/Future knowledge: In 3rd grade (3-2.2), students explained how physical and behavioral adaptations (including hibernation and food obtainment) allowed the organism to survive. In 4th grade (4-2.5), students explained how an organism's behavior is related to its environment (including the availability of food). They also studied how animals use their senses to detect signals in the environment and how their behaviors are influenced by these signals (4-2.3).

It is essential for students to know that animals have *internal stimuli*, or cues, including hunger, thirst, and sleep, that ensure their survival.

Hunger

- The importance of hunger is that it cues animals to eat.
- Animals need food for energy and, therefore, for survival.

Thirst

- The importance of thirst is that it cues animals to take in water.
- Animals need water since their bodies are mostly made of water.

Sleep

- The importance of sleepiness is that it cues the animal to sleep.
- Sleep is required to restore the body's ability to function. -

It is not essential for students to know the internal chemical mechanisms for the stimuli studied here.

Assessment Guidelines:

The objective of this indicator is to *summarize* how the internal stimuli of animals ensure their survival; therefore, the primary focus of assessment should be to generalize the main points about internal stimuli (including hunger, thirst, and sleep) and their affects on animal behavior. However, appropriate assessments should also require students to *identify* internal stimuli (cues); *exemplify* responses to internal stimuli; or *compare* animals' survival responses to internal stimuli.